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DISPOSABLE SPACER FOR SYMMETRIC AND ASYMMETRIC SCHOTTKY CONTACT TO SOI MOSFET

ABSTRACT OF THE DISCLOSURE

A silicon on insulator transistor is disclosed which has a Schottky contact to the body. The Schottky contact may be formed on the source and/or drain side of the gate conductor. A spacer, with at least a part thereof being disposable, is formed on the sidewalls of the gate conductor. Extension regions are provided in the substrate which extend under the spacer and the gate conductor. Source and drain diffusion regions are implanted into the substrate adjacent to the extension regions. The disposable part of the spacer is then removed to expose a portion of the extension region. A metal layer is formed at least in the extension regions, resulting in the Schottky contact.

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